

## **Ultrasonic Sensor Floor Mount**

### **Installation Instructions**

#### **Overview**

The Ultrasonic Sensor Floor Mount is an accessory used to mount the ultrasonic transducer for an Isco Ultrasonic Flow Meter, Flow Logger, or Flow Transmitter over the flow stream.

The mount is a collapsible stand which can be installed either permanently or temporarily. Because it is collapsible, it may be easily lowered into a manhole as a compact, single-piece unit. Installation of the floor mount **does** require entry into the manhole.



**Figure 1: Ultrasonic Sensor Floor Mount**

#### **Materials**

The Ultrasonic Sensor Floor Mount is made of heavy gauge anodized aluminum and stainless steel. The swivel is CPVC. All hardware is of stainless steel, to resist corrosion.

#### **Installation**

The floor mount was designed to provide a convenient, stable method of mounting the ultrasonic transducer (Figure 1).

In temporary installations, the Ultrasonic Sensor Floor Mount may be secured by placing a sandbag over its base (Figure 2). Permanent installation is secured by attaching the base to a floor or wall using studs or other fastening devices.

#### **Adjustment of Height and Reach**

Both the height and reach of the floor mount are adjustable so you can use the floor mount with a wide range of channels.

##### **Height**

The height of the mount when fully collapsed is 12". Fully extended, the height of the mount is 24". This allows for the necessary "dead band" clearance between the transducer and the flow stream.

The height of the floor mount is adjusted by pressing the metal button on the lower vertical pole section and sliding the upper pole section up or down as necessary to achieve the desired height.

The pole is locked when the button snaps back out through one of the holes in the upper pole section. The holes are spaced 1½" apart.

##### **Horizontal Reach**

The horizontal reach of the mount is from 16" to 24" away from the vertical bar of the Ultrasonic Sensor Floor Mount. When fully extended, the horizontal bar allows use of the floor mount over a channel of 48" width maximum.

The horizontal bar is expanded to its maximum length by loosening the two hose clamps on the bar and pulling on the bar's two telescoping sections until the desired length is reached.

The correct length is then locked in by tightening the two hose clamps around each section.

#### **Mounting the Transducer**

At the end of the horizontal bar is the mounting plate for the ultrasonic transducer. Fully adjustable, this plate allows for adjustment of the transducer to the correct angle (perpendicular) over the flow stream. This adjustment is provided to compensate for irregularities in the floor.

The transducer is attached to this plate by sliding the top (where the wire comes out) into the slot between the body of the transducer and the threaded ring on its neck and then tightening the threaded ring to lock it in place. The mounting plate is locked into the correct position by tightening the bolt that attaches it to the horizontal bar.

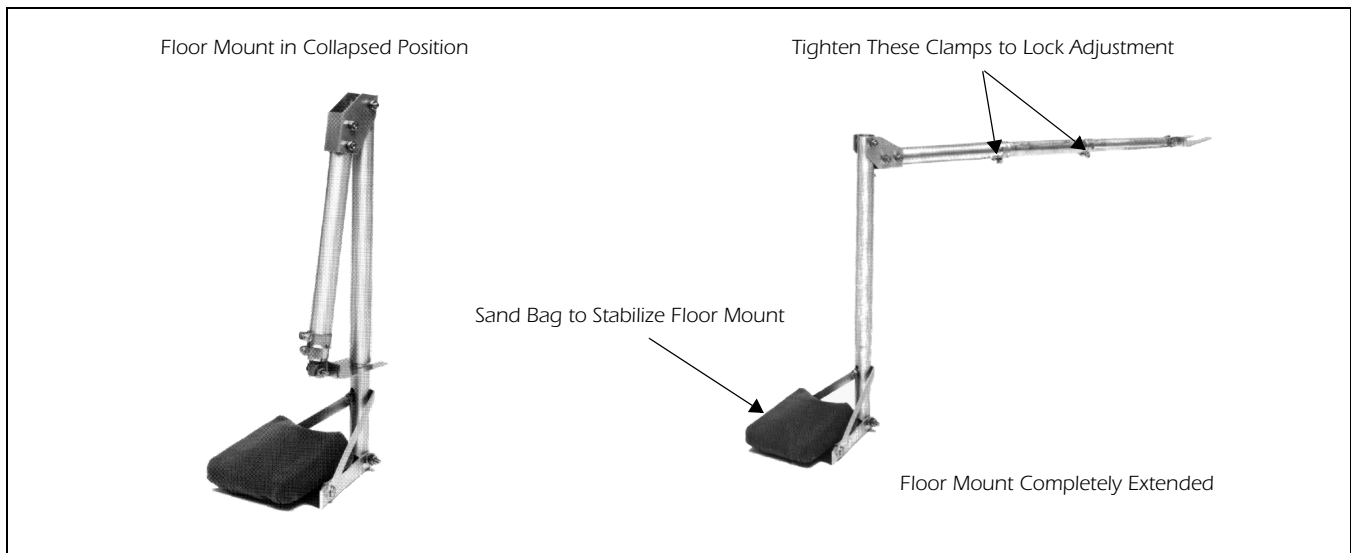
**☑ Note**

Because it is completely adjustable, the Ultrasonic Sensor Floor Mount cannot be self-aligning. Proper alignment is necessary for accurate level reading by the flow meter. It is the user's responsibility to ensure proper alignment of the transducer.

For further details on mounting the ultrasonic transducer, consult the instruction manual for the particular Isco Flow Meter, Flow Logger or Flow Transmitter being used in the installation. **ⓘ**

### Proper Alignment Essential

To be properly aligned, the ultrasonic transducer must be exactly **perpendicular** over the center of the flow stream. The face of the transducer must be installed at least the "dead band" distance above the maximum expected level of the flow stream.



**Figure 2: Floor Mount, Collapsed and Extended**